UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

APR 29 2011

Ms. Cynthia Taub
Steptoe & Johnson LLP
1330 Connecticut Avenue, NW
Washington, DC 20036

Dear Ms. Taub:

This letter is the response to the Information Quality Guidelines Request for Correction (RFC) #10010 submitted on behalf of Troy Chemical Corporation, Inc. (Troy Chemical). EPA received your RFC on September 17, 2010. In the RFC, Troy Chemical alleges the "objectivity" of the EPA 2008 Screening-Level Ecological Risk Assessment (SLERA) for the Newark Bay Study Area[1] is not consistent with the *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency*[2]. Troy Chemical also recommends six specific corrective actions to address their information quality concerns.

After reviewing the RFC, EPA concludes the information and conclusions presented in the SLERA are appropriate for their intended use. We note that the Enclosure found in this response does acknowledge a corrective action and future work which will be incorporated in the draft Baseline Ecological Risk Assessment (BERA). The SLERA is a preliminary document, which includes a conceptual site model, the contaminants of potential ecological concern, and a preliminary exposure assessment performed using conservative assumptions. SLERAs provide a general indication of the potential for ecological risk (or lack thereof) and may be conducted for several purposes including: 1) to estimate the likelihood that a particular ecological risk exists, 2) to identify the need for site-specific data collection efforts, or 3) to focus site-specific ecological risk assessments where warranted.[3] The SLERA for the Newark Bay Study area is being used to determine if ecological threats are negligible or substantial enough to warrant continuing with the risk assessment process. The SLERA demonstrates, as a threshold matter, that enough unacceptable risk exists to ecological receptors in the northern, middle and southern reach and Newark Bay as a whole to warrant the development of a BERA.

The Potentially Responsible Party (PRP) for the Diamond Alkali Superfund Site under EPA oversight[4] plans to develop a draft BERA to further quantify ecological threats using site-

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[1] Final Screening Level Risk Assessment Report for Newark Bay Study Area, Battelle, December 2008. http://www.ournewarkbay.org/projectsites/NewarkBay_public/DM/index.cfm/Final%20Screening-Level%20Ecological%20Risk%20Assessment.pdf?fuseaction=GetDoc&DocId=9625

[2] 67 Fed. Reg. 63657 (October 15, 2002). http://www.epa.gov/quailty/informationguidelines/documents/EPA_InfoQualityGuidelines.pdf

[3] The Role of Screening-Level Risk Assessments and Refining Contaminants of Concern in Baseline Ecological Risk Assessments, EPA 540/F-01/014, EPA, June 2001, http://www.epa.gov/oswer/riskassessment/ecoup/pdf/slera0601.pdf

[4] Amendment to Administrative Order on Consent ("Order"), U.S. E.P.A. Index No. CERCLA-

specific data and realistic exposure parameters. Troy Chemical Corporation, Inc. will have an opportunity to be an active participant in the group that develops the draft BERA and provide direct feedback on the draft BERA as it is being developed. Some of the information quality concerns which you have raised in this RFC will to be addressed in the draft BERA. Before it is finalized, the draft BERA will be made available for public review and comment.

The Agency's specific response to each of Troy Chemical's information quality concerns can be found in the enclosure.

If your information quality concerns have not been addressed in the final BERA for Newark Bay, you may submit a new Request for Correction (RFC). EPA requests that the RFC be submitted within 90 days of the final BERA for Newark Bay. If you choose to submit a RFC, please send a written request to the EPA Information Quality Guidelines Processing Staff via mail (Information Quality Guidelines Processing Staff, Mail Code 2811R, U.S. EPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460); electronic mail (quality@epa.gov); or fax ([202] 565-2441). If you submit a RFC, please reference request number (RFC #10010). Additional information about how to submit an RFC can be found on the EPA Information Quality Guidelines website at http://epa.gov/quality/informationguidelines/index.html

Sincerely,

George Pavlou
Deputy Regional Administrator

Enclosure

cc: Malcolm D. Jackson, Assistant Administrator and Chief Information Officer, Office of Environmental Information

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02-2004-2010, http://ournewarkbay.org/projectsites/NewarkBay_public/DM/index.cfm/2010-03-18%20Newark%20Bay%20AOC%20Amend%20No%202%20EPA.pdf?fuseaction=GetDoc&DocId=12627

Enclosure

EPA Response to Specific Statements in the Troy Chemical RFC

Below are statements that Troy Chemical Corporation, Inc. (see RFC 10010[5] for full description of statements and requested changes) would like to see corrected and the Agency's response to the information quality concerns.

1. "An inappropriate coordinate system was used to analyze contaminant distribution and sources. The SLERA uses an inappropriate coordinate system, which has led to assignment of sampling locations to incorrect "Reaches" within Newark Bay and generation of inaccurate concentration-distance plots. The coordinate system used in the SLERA measures distance along an arbitrary north-south axis rather than along the axis of flow within the Bay (Figure 1). This difference in axis orientation has a significant effect on data interpretation. For example, as illustrated in Figure 1, samples collected from Port Newark Channel and portions of the Northern Reach appear at the same location in the concentration-distance plots presented in EPA's SLERA (see Figures 8-15 in EPA's 2008 SLERA)."

EPA Response: Although the general direction of the graph is north, the actual measurement line runs Southwest-North East along the spine of the bay (see yellow line in Figure 1). This is the axis of flow within the Bay. This measurement line is similar to the one presented in the Gradient memorandum.[6] Based on the actual latitude-longitude measurements, EPA has confirmed that sampling locations have been assigned to the appropriate "reach" within Newark Bay.

Figure 1

Figures 8 through 15 in the SLERA show 37 depositional sediment concentrations, collected during the Phase 1 study, plotted against distance north of Goethals Bridge. . The concentration-distance plots presented in the SLERA for samples collected from Port Newark Channel and

[5] http://epa.gov/quality/informationguidelines/documents/10010.pdf

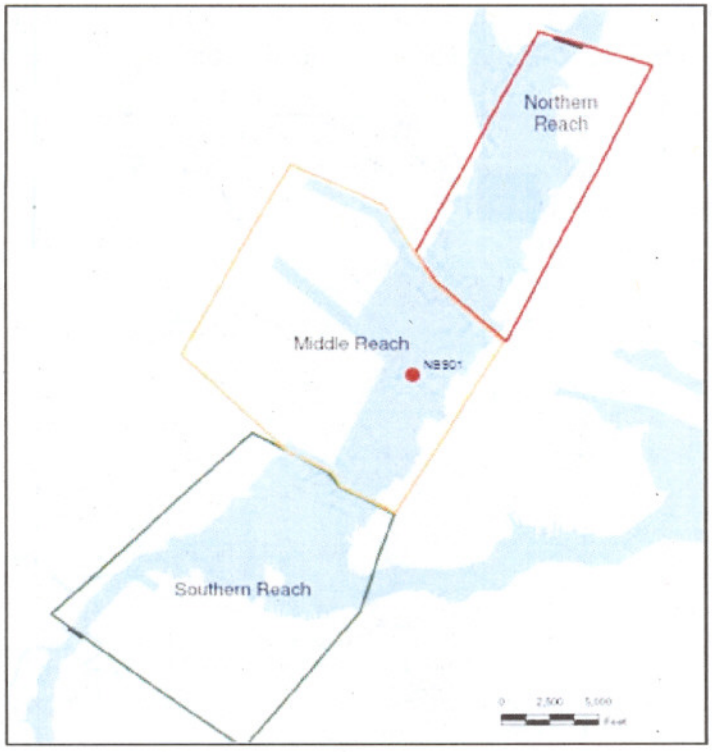
[6] Memorandum from Manu Sharma and Andy Bittner, Gradient Corporation, June 2010. http://epa.gov/quality/informationguidelines/documents/10010a.pdf

portions of the Northern Reach reflect their actual locations (based on documented latitude-longitude measurements) relative to the Goethals Bridge.

2. "A key Northern Reach data point (NB901) was incorrectly included in the Middle Reach. Due to the misaligned coordinate system, a key sediment sample in Newark Bay (i.e., NB901), located in the Northern Reach, was incorrectly used to assess ecological risks for the Middle Reach (see Figure 2 in Attachment 1). Sample location NB901 is important because it contained high sediment concentrations of several compounds, including the highest surficial mercury concentration recorded in the Northern Reach. This sample also contained high concentrations of arsenic, copper, total DDx (DDT, DDE, DDD), and 2,3,7,8-TCDD. Troy Chemical requests that the ecological risk calculations be corrected in the SLERA using data from sample NB901 to characterize Northern Reach sediments rather than Middle Reach sediments."

EPA Response: Sample NB901, which was collected in 1999 during the Contaminant Assessment Reduction Program (CARP), is located in the Middle Reach. Figure 2 shows the actual sample location for NB901 (based on documented latitude-longitude measurements for sample NB901. Consequently, the use of sample NB901 to characterize Middle Reach sediments is appropriate.

Figure 2



3. The maximum 2,3,7,8-TCDD concentration in the Southern Reach was detected at sample location NB01SED019. However, the 2,3,7,8-TCDD concentration measured at this location does not appear to have been used in the HQ calculations, although concentrations for many other analytes measured at this location were used in the analysis."

***E*PA Response:**

The highest surface concentration of 2,3,7,8-TCDD in the southern reach was found in sample NB01SED019 at a concentration of 592 pg/g (0.592 ppb) and the SLERA report indicates the highest concentration detected in NOAAHRT2:44 at a concentration of 0.092 ppb (Table D-4). The concentration should have been 0.592 ppb. This calculation will be corrected in the BERA.

4. "A key data point used in EPA's calculations (i.e., sample 105 in the SLERA) is located within the transitional slope region of Port Newark Channel. Because this sample was collected in 1993 in an area that may have since been dredged, it is not representative of current conditions and should not have been used in the ecological screening calculations."

EPA Response: This area of the bay was dredged in 1983 and 1989, which was before the sample was collected. EPA is not aware of any information [if this is true] that demonstrates the area was dredged after 1993, but welcomes any data Troy Chemical has to show that dredging did occur after 1993. At this point, based on information EPA has, it is appropriate to include this sample in the SLERA. If EPA obtains information that indicates that this area has been dredged recently, the draft BERA will be updated with new data.

5. "The wildlife PCLs used in the Newark Bay SLERA are very different from the Passaic River SLERA. The sediment bioaccumulation PCL values used in the Newark Bay SLERA differ considerably from those used in the Passaic River SLERA (Malcolm Pirnie, 2007), although the receptors and overall approach used for PCL calculations are identical. The two documents appear to use different bioaccumulation sediment accumulation factors (BSAFs), although the reasons for these changes are not clear. Nonetheless, the resulting PCL values in the two reports are very different and have a significant impact on the calculated HQ values and the identified compounds of potential environmental concern (COPECs)."

EPA Response: The differences in the wildlife protective concentration levels (PCLs) used in the Newark Bay SLERA and the Passaic River Focused Feasibility Study document can be attributed to the difference in the purpose of the two documents. The Newark Bay SLERA was a screening-level ecological risk assessment, which used standard EPA ecological soil screening values to determine if additional evaluation of ecological risk was warranted for Newark Bay. The Passaic River Focused Feasibility Study document utilized values based on site-specific models to document adverse ecological impacts to support a remedial action. In general, the screening values used in the Newark Bay SLERA were more conservative, which is the standard approach for screening-level ecological risk assessments.

The letter submitted called into question twelve values. For seven of the compounds (mercury, arsenic, cadmium, lead, total DDx, total Aroclor PCBs, and dieldrin) the values presented in both documents are essentially equivalent with differences generally ascribed to rounding. Two compounds, copper and chromium, are more conservative in the Newark Bay SLERA, which is standard practice, due to a different BAF being used. Two additional compounds, HMWPAH and LMWPAH, are more conservative in the Newark Bay SLERA due to a different endpoint being used. For both HMWPAHs and LMWPAHs standard screening values were utilized in the Newark Bay SLERA, while less conservative values for these compounds, which were based on more advanced modeling, were used for the Passaic River Focused Feasibility Study. The

remaining compound, 2,3,7,8-TCDD, used a less conservative value for the Newark Bay SLERA. The value that was used in the Newark Bay SLERA for 2,3,7,8-TCDD was a standard screening value, which is consistent with the other values that were used in the Newark Bay SLERA. A more conservative value for 2,3,7,8-TCDD was used in the Passaic River Focused Feasibility Study based on more advanced modeling to address potential impacts to mollusks. As the ecological risk assessment process continues for Newark Bay, comparison values for detected compounds will be refined and updated through consultation with all stakeholders associated with the Newark Bay Study Area.

6. Consideration of the Phase II sediment data indicates that the conclusions reached by the prior Newark Bay Mercury Mass Balance model are not valid. Gradient reviewed the mass balance and updated the analysis incorporating the Phase II sediment quality data for Newark Bay (see Tables 3 and 4 in Attachment 1). The conclusion from the prior mass balance that 158 kg/year could not be accounted for using the modeled sources is not valid."

EPA Response: The SLERA references a simple preliminary mercury mass balance model that was created using data that was available at the time. Chemical water column data is being collected and a contaminant fate and transport model for the study area is being set up. The draft BERA will be created using the results of this model work.